REMARKS

Claims 1, 9, and 13-17 are amended and claims 2-4, 10-12, and 18-19 are cancelled. Upon entry of the amendment, claims 1, 5-9, and 13-17 will be pending.

The claims are amended to patentably define over the prior art cited in the corresponding PCT application. The prior art was submitted to the Patent Office in a letter dated October 30, 2002.

Applicants respectfully request allowance of claims 1, 5-9, and 13-17. The undersigned requests a telephone call from the Examiner if this would expedite allowance of the application.

The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 19-1345.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 (amended). A crystal puller for producing a monocrystalline ingot, the crystal puller comprising:

a susceptor [having] including a bottom and a side wall having an inner surface and an upper rim;

a crucible for holding molten source material and including a side wall having an outer surface, said crucible being received in the susceptor and having [a] the outer surface of the side wall disposed in generally radially opposed relationship with the inner surface of the susceptor side wall, the inner surface being free of shielding;

the susceptor being sized such that the crucible side wall extends up to above the upper rim of the susceptor side wall whereby a seam is defined by the upper rim of the susceptor side wall and the outer surface of the crucible side wall;

a heater in thermal communication with the susceptor and crucible for heating the crucible to a temperature sufficient to melt the source material held by the crucible;

a pulling mechanism positioned above the crucible for pulling the ingot from the molten source material held by the crucible; and

[a] an annular sealing member adapted for seating on the upper rim of the susceptor side wall in close contact relationship with the [crucible side wall and the] upper rim of the susceptor side wall and the outer surface of the crucible side wall substantially about the entire circumference of the crucible side wall to seat over said seam to generally seal between the crucible and the susceptor any gaseous product

resulting from a reaction of the crucible with the susceptor against escape from between the crucible and the susceptor thereby retarding the reaction of the crucible with the susceptor.

Please cancel claims 2-4 without prejudice to their patentability.

9 (amended). A susceptor assembly in combination with a crucible for use in a crystal puller of the type used for growing a monocrystalline ingot from molten source material contained in [a] the crucible in the crystal puller, the susceptor assembly comprising:

a susceptor [having] including a bottom and a side wall having an inner surface and an upper rim, the susceptor being sized for receiving and holding the crucible in the crystal puller, the inner surface of the side wall of the susceptor being in generally radially opposed relationship with an outer surface of a side wall of the crucible and being free of shielding, the susceptor being sized such that the crucible side wall extends up to above the upper rim of the susceptor side wall whereby a seam is defined by the upper rim of the susceptor side wall and the outer surface of the crucible side wall; and

[a] an annular sealing member adapted for seating on the upper rim of the susceptor side wall in close contact relationship with the upper rim of the [crucible] susceptor side wall and the [susceptor] outer surface of the crucible side wall substantially about the entire circumference of the crucible side wall to seat over said seam to generally seal between the crucible and the susceptor any gaseous product resulting from a

reaction of the crucible with the susceptor against escape from between the crucible and the susceptor thereby retarding the reaction of the crucible with the susceptor.

Please cancel claims 10-12 without prejudice to their patentability.

13 (amended). A [crystal puller] susceptor assembly as set forth in claim 9 wherein the annular sealing member is constructed of graphite.

14 (amended). A [crystal puller] susceptor assembly as set forth in claim 13 wherein the annular sealing member is constructed of isomolded graphite.

15 (amended). A [crystal puller] susceptor assembly as set forth in claim 9 wherein the susceptor is constructed of at least two pieces, the susceptor pieces generally abutting one another other along a seam comprising a generally vertically extending segment within [in] the side wall of the susceptor.

16 (amended). A [crystal puller] susceptor assembly as set forth in claim 15 wherein the vertically extending segment of the seam between abutting susceptor pieces is directed generally non-radially through the side wall of the susceptor such that the susceptor pieces radially overlap each other along the seam to further inhibit gaseous product against escaping from between the susceptor and the crucible.

17 (amended). A method for growing monocrystalline ingots from molten source material in a crystal puller of the type having a crucible adapted for holding source material and a heater adapted for heating the crucible to melt the source material in the crucible, the method comprising the steps of:

seating the crucible in a susceptor mounted in the crystal puller, the susceptor [having] including a bottom and a side wall having an inner surface in generally radially opposed relationship with a side wall of the crucible and the inner surface of the susceptor side wall being free of shielding, the susceptor being sized such that the crucible side wall extends up within the crystal puller to above the upper rim of the susceptor side wall whereby the seam is defined by the upper rim of the susceptor side wall and an outer surface of the crucible side wall;

charging semiconductor source material to the crucible;

heating the susceptor and crucible to a temperature sufficient to melt the semiconductor source material held by the crucible, said heating causing the crucible to react with the susceptor therebetween to produce a gaseous product; and

generally sealing said gaseous product between the susceptor and crucible by seating a sealing member on the upper rim of the susceptor side wall in close contact relationship with the upper rim of the susceptor side wall and the outer surface of the crucible side wall substantially about the entire circumference of the crucible side wall so that the sealing member seats over said seam to increase the concentration of said gaseous product [therebetween] between the susceptor and crucible, thereby inhibiting further reaction of the crucible with the susceptor.

Please cancel claims 18-19 without prejudice to their patentability.